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US Travel
Data Center

Impact of Travel on State Economies 1987

US Travel Data Center • Two Lafayette Centre, 1133 21st Street, NW • Washington, DC 20036
(202) 293-1040

The US Travel Data Center is an affiliate of the Travel Industry Association of America

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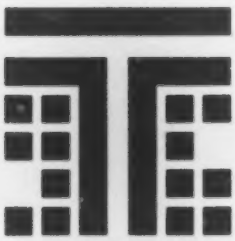

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US Travel Data Center, Two Lafayette Centre, 1133 21st Street, N.W., Washington, D.C. 20036

The US Travel Data Center is an affiliate of the Travel Industry Association of America.

The US Travel Data Center is the national, non-profit center of travel and tourism research. Since its establishment in 1973, the Data Center has devoted itself to advancing the common interests of the travel industry and the public it serves by encouraging, sponsoring and conducting statistical, economic, and scientific research concerning travel, the travel industry, and travel-related industries. In pursuit of this objective the Data Center gathers, analyzes, publishes and disseminates the results of such research, and cooperates with all government agencies, private industry and academic institutions with similar purposes and objectives.

The US Travel Data Center is an affiliate of the Travel Industry Association of America (TIA), the national, non-profit association representing all components of the United States travel industry, the third largest retail industry in the nation.

Dr. John D. Hunt, Chairman

Dr. Suzanne D. Cook, Director

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EXECUTIVE SUMMARY

- U.S. residents and foreign visitors spent $291 billion traveling in America during 1987, a 9.1 percent increase over the previous year.

- These expenditures directly generated 5.3 million jobs paying over $64 billion in wages and salaries.

- The total (direct and indirect) impact of travel spending on the U.S. economy in 1987 was $571.8 billion in expenditures and output and $171.4 billion in wages and earnings.

- Travel spending in America generated over $35 billion in tax revenue for federal, state and local governments.

- California garnered the largest share of travel spending in the U.S. during 1987 with 13 percent of the total market followed by Florida with almost 9 percent.

- Twenty states posted double-digit increases in domestic travel spending during 1987, while another four states grew faster than the national average of 8.8 percent.

- In 13 states, jobs directly generated by travel spending exceeded those generated by all other private industries during 1987. The travel industry was among the top three employers in 37 states.

- Nevada has the highest share of employment that is travel-generated, 32 percent.

- On the average, every $54,600 spent on travel in the U.S. directly supported one job in 1987.

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INTRODUCTION

The estimates of the economic impact of travel contained in this volume are the product of the US Travel Data Center's Travel Economic Impact Model (TEIM), an economic model developed expressly to indicate the expenditures, employment, payroll, business receipts and tax revenue generated by travel away from home in the U.S.

The conceptual development of the model was funded by the Bureau of Land Management of the U.S. Department of the Interior in 1975. Since that time, the TEIM has been expanded to reflect the availability of improved data and has been computerized. While not detailed here, the model has also been extended to produce improved county-level estimates of travel impact. The data contained in this report and others in this series are the only estimates of the economic impact of travel available for all 50 states and the District of Columbia.

Benchmark estimates of travel spending in each state and the employment, payroll income, and tax revenue generated by them, were developed for 1977 based upon the U.S. Census Bureau's National Travel Survey and Censuses of Service Industries and Retail Trade. Based on benchmark data obtained from the 1982 Census of Service Industries and Retail Trade, the TEIM time series on travel's impact on each state have been revised. The 1984 edition contained revised impact estimates going back to 1982. Estimates in the 1984, 1985, 1986, and 1987 reports are not comparable to prior years due to the revision.

The Data Center views the model as a continuing, evolving project producing annual estimates. As part of this ongoing process, the Data Center is undertaking a major revision project of the TEIM this year. These revisions include re-examination of the original TEIM's coverage and assumptions, incorporation of improved input data, revision of the impact equations, and improvements in the computer processing and outputs. In addition, new components will be incorporated in the revised TEIM to permit estimation of the multiplier effects of travel expenditures on national, state and local areas. It will also provide consistent estimation of the economic impact of foreign visitors, and forecasts of future travel demand and impact.

It is hoped that this publication will stimulate discussion and criticism of the TEIM to promote further development and improvement. Users of these data are encouraged to communicate their reactions, both positive and negative, to the Data Center in the interests of progress in travel research.

The individual state estimates should not necessarily be viewed as substitutes for major state research projects on the impact of travel and tourism. Rather, the user should compare the methodologies and results, and draw his/her own conclusions regarding the validity of differing approaches and estimates.

In the Appendices, the Travel Economic Impact Model is summarized and a glossary of terms is provided. Research sources used in producing these estimates are also listed.

1987 TRAVEL EXPENDITURES IN THE U.S.

During 1987, Americans spent $275 billion in the U.S. on travel away from home. This includes expenditures while traveling away from home overnight or to places 100 miles or more away from home. Domestic travel spending for 1987 increased 8.8 percent over the previous year.

As indicated in Table 1, foodservice accounted for almost 26 percent of travel spending in 1987, to lead all categories. If auto and public transportation categories are combined, however, they account for 39 percent of the total. Traveler expenditures for public transportation had the largest increase over 1986, 11.8 percent. Spending on auto transportation increased 8.8 percent partly due to increases in gasoline prices and vehicle miles traveled during the year.

Table 1: 1987 Travel Expenditures in the U.S.

Expenditure category	Expenditures ($ billions)	Percent of U.S. total	Percent change from 1986
Public transportation	$ 67.7	24.6%	11.8%
Auto transportation	39.8	14.4	8.8
Lodging	46.5	16.9	8.9
Foodservice	70.7	25.7	6.6
Entertainment and recreation	27.8	10.1	8.7
General retail trade	22.7	8.2	6.6
U.S. total	$275.2	100.0	8.8%
U.S. territories	1.2		4.2%
Foreign visitor-generated	14.8		18.6%
Grand total	$291.2		9.1%

Note: details may not add to totals due to rounding.
Source: US Travel Data Center, U.S. Travel and Tourism Administration, Department of Commerce

Traveler spending for hotel/motel lodging, which rose nearly nine percent during 1987, should be distinguished from total receipts of commercial lodging facilities. The latter includes all receipts from hotels, motels and motor hotels for rooms, food, and beverages, concessions, telephone service, valet and other services to customers. The TEIM cannot distinguish meals purchased in restaurants operated by hotels and motels from those purchased in separate restaurants. Consequently, some of the food purchases estimated by the model took place in commercial lodging facilities although attributed herein to "foodservice".

This explains how changes in lodging expenditures by travelers may differ from variations in total lodging industry receipts as reported by the U.S. Bureau of the Census and other organizations. Moreover, this convention also affects TEIM estimates of travel-generated payroll and employment for lodging and foodservice.

According to the U.S. Travel and Tourism Administration, Department of Commerce, foreign visitors in 1987 spent $14.8 billion while traveling in the U.S. and its territories, an increase of 18.6 percent over 1986. This was primarily the result of a weakening U.S. dollar in terms of major foreign currencies and relatively moderate gains in worldwide economies. This spending figure covers foreign traveler expenditures in the U.S., and excludes receipts of U.S. carriers for international transportation of foreign nationals. In addition, the Data Center estimates that U.S. visitors to the U.S. territories spent $1.2 million in 1987, up 4.2 percent from the previous year.

Total U.S. residents and foreign visitors spent $291 billion on travel in the U.S. and its territories during 1987, an annual increase of 9.1 percent. The growth in travel spending during 1987 was somewhat higher than the 6.8 percent annual growth rate for the nation's gross national product (GNP). However, travel price inflation, as measured by the Travel Price Index (TPI), did increase by more than the increase in prices of all consumer goods and services. The TPI rose 5.4 percent for the year, compared to a 3.6 percent increase in the Consumer Price Index (CPI). Total travel spending in the U.S. represented 6.4 percent of GNP during 1987.

Table 2 indicates U.S. travel spending during 1987 in six categories by state visited. It comprises total spending by U.S. travelers in the fifty states and the District of Columbia, representing sales and gross receipts paid. The average state enjoyed $5.39 billion in U.S. travel spending in 1987; seventeen states exceeded this. In total, 43 states and the District of Columbia, received more than one billion dollars from U.S. travelers.

Table 3 provides analytical information on U.S. travel spending in each state: percent change from the previous year, share of U.S. travel expenditures, and rank by volume of expenditures in each state. Florida experienced the largest percentage gain of any state with an increase of over 19 percent in travel spending. Twenty states and the District of Columbia posted double-digit advances over 1986, while an additional three states grew faster than the national average of 8.8 percent. Only three states suffered declines in travel spending from 1986. These declines were modest, and none of the three declining states lost more than two percent in travel spending over 1986 expenditures.

California led all other states in travel spending with $35.8 billion during 1987. Florida and New York followed with $24.3 and $17.2 billion. Rhode Island ranked last among all states with $571 million in travel expenditures, but the State did enjoy an increase of more than 15 percent over last year's travel spending.

Table 2: 1987 U.S. Domestic Travel Expenditures For All Trips
($ Millions)

State	Public Transportation	Auto Transportation	Lodging	Foodservice
Alabama	$ 236.4	$ 374.1	$ 393.0	$ 601.0
Alaska	320.6	115.9	133.8	202.8
Arizona	1,238.9	883.3	1,083.1	1,485.9
Arkansas	130.2	371.5	288.8	672.7
California	10,998.1	5,108.9	5,397.2	8,819.2
Colorado	1,329.2	629.4	905.4	1,410.0
Connecticut	1,260.0	792.4	271.9	463.2
Delaware	46.4	90.6	181.3	250.3
Florida	4,356.5	3,322.1	5,306.5	7,192.7
Georgia	1,062.0	1,126.1	976.3	1,540.4
Hawaii	696.5	282.6	1,204.2	761.9
Idaho	123.0	125.7	137.6	471.2
Illinois	4,504.7	1,342.7	1,399.3	1,968.9
Indiana	695.1	664.1	390.6	890.9
Iowa	412.3	394.6	225.3	590.2
Kansas	468.8	424.9	222.0	606.9
Kentucky	281.3	666.4	342.8	680.4
Louisiana	699.5	912.0	575.2	1,044.4
Maine	140.2	202.1	614.0	753.6
Maryland	1,751.2	527.5	651.9	1,537.9
Massachusetts	2,254.9	1,043.1	1,338.4	1,311.9
Michigan	2,259.9	1,319.1	1,607.4	1,922.1
Minnesota	1,549.9	872.5	852.2	1,312.7
Mississippi	172.0	264.6	171.2	432.1
Missouri	1,633.1	1,023.7	862.5	1,013.9
Montana	39.9	115.7	173.5	232.1
Nebraska	240.1	285.2	154.6	403.9
Nevada	696.8	565.8	1,404.5	1,424.9
New Hampshire	306.5	229.2	582.4	499.6
New Jersey	4,701.2	727.1	1,483.0	2,660.1

Table 2: 1987 U.S. Domestic Travel Expenditures
For All Trips (Continued)
($ Millions)

State	Public Transportation	Auto Transportation	Lodging	Foodservice
New Mexico	$ 329.7	$ 250.3	$ 274.4	$ 675.5
New York	4,613.2	2,835.4	3,557.7	4,150.4
North Carolina	1,074.8	860.3	1,384.0	2,048.6
North Dakota	107.8	187.3	70.1	168.9
Ohio	2,256.7	1,410.8	800.2	1,861.7
Oklahoma	650.4	433.3	316.3	888.4
Oregon	466.4	461.4	385.5	923.2
Pennsylvania	3,120.8	1,345.4	1,770.2	3,231.6
Rhode Island	190.6	101.6	77.2	122.5
South Carolina	374.8	647.3	935.1	1,463.0
South Dakota	63.7	106.5	130.5	187.5
Tennessee	902.6	698.2	685.4	1,385.4
Texas	4,478.8	2,570.2	2,343.3	3,726.2
Utah	469.8	229.0	343.9	651.5
Vermont	73.3	95.2	352.2	694.3
Virginia	1,257.6	867.3	1,505.1	2,061.4
Washington	1,505.0	578.3	539.9	1,079.6
West Virginia	90.4	357.5	324.9	383.8
Wisconsin	529.8	647.2	847.8	1,333.9
Wyoming	93.6	145.3	163.8	197.6
District of Columbia	458.8	115.9	374.3	348.5
Total	$67,713.6	$39,746.1	$46,511.5	$70,741.0

Note: details may not add to totals due to rounding.
Source: US Travel Data Center

Table 2: 1987 U.S. Domestic Travel Expenditures
For All Trips (Continued)
($ Millions)

State	Entertainment and Recreation	General Retail Trade	Total
Alabama	$ 200.9	$ 236.2	$ 2,041.6
Alaska	38.2	45.2	856.5
Arizona	429.3	514.9	5,635.4
Arkansas	202.0	244.1	1,909.2
California	2,677.0	2,796.4	35,796.9
Colorado	669.0	512.1	5,454.9
Connecticut	163.3	157.1	3,107.7
Delaware	78.7	77.4	724.7
Florida	1,947.7	2,214.3	24,339.8
Georgia	497.2	506.6	5,708.6
Hawaii	162.7	192.6	3,300.7
Idaho	89.2	114.7	1,061.3
Illinois	705.1	688.7	10,609.4
Indiana	303.8	344.8	3,289.2
Iowa	176.9	196.7	1,996.1
Kansas	212.8	232.1	2,167.5
Kentucky	221.2	235.8	2,427.8
Louisiana	306.9	307.3	3,845.2
Maine	216.1	228.4	2,154.4
Maryland	401.0	452.7	5,322.3
Massachusetts	373.3	399.4	6,720.9
Michigan	795.3	716.3	8,620.1
Minnesota	519.1	444.4	5,550.7
Mississippi	133.9	157.1	1,330.9
Missouri	372.7	385.7	5,291.5
Montana	80.8	85.9	727.9
Nebraska	131.8	143.4	1,359.0
Nevada	3,814.3	340.2	8,246.5
New Hampshire	209.5	174.6	2,001.7
New Jersey	2,954.5	762.9	13,288.8

Table 2: 1987 U.S. Domestic Travel Expenditures
For All Trips (Continued)
($ Millions)

State	Entertainment and Recreation	General Retail Trade	Total
New Mexico	$ 199.7	$ 188.4	$ 1,918.0
New York	1,009.3	1,027.5	17,193.4
North Carolina	669.9	704.8	6,742.4
North Dakota	47.8	65.2	647.1
Ohio	582.1	623.8	7,535.2
Oklahoma	314.7	324.1	2,927.1
Oregon	274.8	282.5	2,793.9
Pennsylvania	1,080.4	1,124.6	11,673.0
Rhode Island	36.8	42.2	571.0
South Carolina	413.5	460.6	4,294.4
South Dakota	63.8	74.2	626.1
Tennessee	467.6	426.2	4,565.4
Texas	1,285.8	1,315.4	15,719.5
Utah	230.8	222.9	2,147.8
Vermont	191.3	169.9	1,576.2
Virginia	551.9	609.1	6,852.3
Washington	392.3	373.8	4,468.9
West Virginia	135.5	139.5	1,431.6
Wisconsin	584.1	442.7	4,385.6
Wyoming	85.7	74.2	760.2
District of Columbia	72.1	72.5	1,442.1
Total	$27,773.9	$22,672.0	$275,158.3

Note: details may not add to totals due to rounding.
Source: US Travel Data Center

Table 3: 1987 U.S. Domestic Travel Expenditures For All Trips, State Ranking, Shares and Percent Change

State	1987 Travel Expenditures ($ Millions)	Change from 1986 (Percent)	Share of U.S. Total (Percent)	Rank
Alabama	$ 2,042	9.4%	0.75%	34
Alaska	857	-1.0	0.32	45
Arizona	5,635	17.0	2.05	15
Arkansas	1,909	1.9	0.70	38
California	35,797	6.4	13.01	1
Colorado	5,455	5.4	1.99	17
Connecticut	3,108	10.8	1.13	27
Delaware	725	2.3	0.27	48
Florida	24,340	19.6	8.85	2
Georgia	5,709	8.8	2.08	14
Hawaii	3,301	8.6	1.20	25
Idaho	1,061	4.8	0.39	44
Illinois	10,609	11.1	3.86	7
Indiana	3,289	6.7	1.20	26
Iowa	1,996	1.5	0.73	36
Kansas	2,168	10.3	0.79	31
Kentucky	2,428	5.9	0.89	30
Louisiana	3,845	6.9	1.40	24
Maine	2,154	14.5	0.79	32
Maryland	5,322	11.7	1.94	18
Massachusetts	6,721	13.6	2.45	13
Michigan	8,620	13.0	3.14	8
Minnesota	5,551	7.2	2.02	16
Mississippi	1,331	-1.4	0.49	43
Missouri	5,291	6.5	1.93	19
Montana	728	1.5	0.27	47
Nebraska	1,359	9.0	0.50	42
Nevada	8,246	13.3	3.00	9
New Hampshire	2,002	17.1	0.73	35
New Jersey	13,289	2.5	4.83	5

Table 3: 1987 U.S. Domestic Travel Expenditures For All Trips, State Ranking, Shares and Percent Change (Continued)

State	1987 Travel Expenditures ($Millions)	Change from 1986 (Percent)	Share of U.S. Total (Percent)	Rank
New Mexico	$ 1,918	6.0%	0.70%	37
New York	17,193	2.5	6.25	3
North Carolina	6,742	10.9	2.46	12
North Dakota	647	4.2	0.24	49
Ohio	7,535	9.3	2.74	10
Oklahoma	2,927	6.7	1.07	28
Oregon	2,794	12.5	1.02	29
Pennsylvania	11,673	15.5	4.25	6
Rhode Island	571	15.5	0.21	51
South Carolina	4,294	10.2	1.57	23
South Dakota	626	5.8	0.23	50
Tennessee	4,565	11.9	1.66	20
Texas	15,720	0.2	5.72	4
Utah	2,148	10.8	0.79	33
Vermont	1,576	17.9	0.58	39
Virginia	6,852	12.8	2.50	11
Washington	4,469	5.6	1.63	21
West Virginia	1,432	1.0	0.53	41
Wisconsin	4,386	5.1	1.60	22
Wyoming	760	-1.4	0.28	46
District of Columbia	1,442	12.4	0.53	40
Total	$275,158	8.8%	100.00%	

Note: details may not add to total due to rounding
Source: US Travel Data Center

1987 TRAVEL-GENERATED BUSINESS RECEIPTS

Travel-generated business receipts differ from travel expenditures by excluding federal, state, local and territorial retail sales, hotel occupancy, admission and other taxes collected by establishments directly from customers and paid directly to taxing authorities. These estimates are useful for comparison with business sales and receipts data published by the U.S. Department of Commerce.

In 1987, travel-related businesses in the 50 states and the District of Columbia enjoyed sales of $265.7 billion from American residents traveling within the U.S. This represents an 8.7 percent increase over the 1986 total.

As indicated in Table 4, the foodservice sector generated 25.2 percent of total travel-generated business receipts. Included in this total are food and beverage services in hotels and motels as well as other retail eating and drinking places. Consequently, the business receipts shown below for the lodging industry will be smaller than most published estimates because they exclude revenue from food and beverage service. The public transportation sector

Table 4: Travel-generated Business Receipts in the U.S., 1987

Industry category	Business Receipts ($ billions)	Percent of U.S. total	Percent of expenditures
Public transportation	$ 67.6	25.4%	99.7%
Auto transportation	38.6	14.5	96.7
Lodging	44.6	16.8	95.8
Foodservice	67.1	25.2	94.8
Entertainment and recreation	26.4	10.0	95.2
General retail trade	21.5	8.1	94.9
U.S. total	$265.7	100.0	96.6%
U.S. territories	1.2		
Foreign visitor-generated	13.0		
Grand total	$279.9		

Note: details may not add to totals due to rounding.
Source: US Travel Data Center

accounted for slightly more than foodservice with 25.4 percent of total business receipts, while lodging generated nearly 17 percent.

Overall, travel-generated business receipts comprise 96.6 percent of travel spending in the U.S. The balance is accounted for by retail sales taxes. Among the categories, the proportions range from almost 95 percent for foodservice and general retail trade to nearly 100 percent for public transportation. This indicates foodservice and retail trade are taxed more heavily at the retail level as compared to public transportation.

The Data Center estimates business receipts resulting from U.S. visitor spending in the U.S. territories totaled a little over one billion dollars in 1987. Foreign visitor expenditures produced another $13.0 billion in business receipts, but currently cannot be distributed among the business categories or the states as can U.S. traveler-generated receipts.

During 1987, all travelers in the U.S. and its territories produced $279.9 billion in sales revenue for American business firms.

Table 5 details how business receipts produced by U.S. travel expenditures are distributed among six industry categories for each of the fifty states and the District of Columbia. Businesses in the average state earned receipts of $5.2 billion in 1987.

The states' ranking generally follows travel expenditures. California was first in travel-generated business receipts with nearly $35 billion and Florida followed with $23 billion. In all, seven states enjoyed more than $10 billion in these business receipts, while 43 states and the District of Columbia received more than $1 billion.

At the other end of the scale, Rhode Island collected $556 million in travel-generated business receipts. Although lowest among the states, this figure represents more than a 15 percent increase in travel-related business receipts over 1986 for Rhode Island.

Table 5: 1987 U.S. Domestic Travel-Generated Business Receipts
($ Millions)

State	Public Transportation	Auto Transportation	Lodging	Foodservice
Alabama	$ 236.4	$ 370.7	$ 379.4	$ 570.2
Alaska	320.6	115.7	133.4	201.8
Arizona	1,235.9	870.9	1,045.4	1,402.7
Arkansas	130.2	368.2	280.9	640.7
California	10,998.1	4,819.7	5,109.1	8,320.0
Colorado	1,329.2	620.4	875.8	1,344.4
Connecticut	1,260.0	765.8	255.6	430.8
Delaware	46.4	90.3	177.6	250.3
Florida	4,356.5	3,163.9	5,061.5	6,850.2
Georgia	1,058.6	1,093.3	939.4	1,495.5
Hawaii	694.9	266.5	1,120.3	732.6
Idaho	123.0	124.0	132.7	448.7
Illinois	4,504.7	1,264.7	1,323.9	1,849.2
Indiana	695.1	628.5	367.6	834.5
Iowa	412.3	389.5	213.0	567.5
Kansas	468.8	419.2	212.7	580.8
Kentucky	281.3	661.2	328.5	648.0
Louisiana	699.5	897.9	540.1	978.8
Maine	140.2	198.0	598.2	717.7
Maryland	1,751.2	513.9	612.8	1,464.7
Massachusetts	2,254.9	1,023.5	1,276.5	1,249.4
Michigan	2,259.9	1,268.4	1,584.8	1,848.2
Minnesota	1,549.9	858.3	819.8	1,228.9
Mississippi	172.0	251.0	160.2	403.8
Missouri	1,633.1	1,006.6	837.7	958.2
Montana	39.9	115.7	173.5	232.1
Nebraska	239.7	279.9	145.9	381.1
Nevada	696.8	564.8	1,368.9	1,397.0
New Hampshire	306.5	229.2	571.3	466.9
New Jersey	4,701.2	701.8	1,425.5	2,509.6

Table 5: 1987 U.S. Domestic Travel-Generated Business Receipts (Continued)
($ Millions)

State	Public Transportation	Auto Transportation	Lodging	Foodservice
New Mexico	$ 327.8	$ 247.5	$ 256.4	$ 639.9
New York	4,613.2	2,700.6	3,418.6	3,878.9
North Carolina	1,074.8	853.3	1,358.1	1,969.8
North Dakota	107.8	185.6	66.3	160.5
Ohio	2,256.7	1,381.1	760.2	1,759.9
Oklahoma	645.2	425.1	302.7	839.4
Oregon	466.4	461.4	377.3	923.2
Pennsylvania	2,996.2	1,318.1	1,698.5	3,048.7
Rhode Island	190.6	99.2	74.2	115.6
South Carolina	374.8	637.9	891.9	1,389.9
South Dakota	63.7	104.9	125.9	178.3
Tennessee	902.6	683.6	640.3	1,288.3
Texas	4,478.8	2,523.6	2,244.6	3,504.4
Utah	469.8	224.0	327.4	610.3
Vermont	73.3	94.7	344.1	655.0
Virginia	1,257.6	852.8	1,436.3	1,959.9
Washington	1,505.0	563.2	503.3	1,004.3
West Virginia	90.4	357.0	318.5	365.5
Wisconsin	529.8	638.4	829.8	1,270.4
Wyoming	93.2	144.6	158.9	190.8
District of Columbia	458.8	113.1	341.4	322.7
Total	$67,573.0	$38,551.1	$44,546.4	$67,079.6

Note: details may not add to totals due to rounding.
Source: US Travel Data Center

Table 5: 1987 U.S. Domestic Travel-Generated Business Receipts (Continued)
($ Millions)

State	Entertainment and Recreation	General Retail Trade	Total
Alabama	$ 190.7	$ 224.1	$ 1,971.5
Alaska	38.1	45.0	854.5
Arizona	405.2	486.0	5,446.2
Arkansas	192.4	232.5	1,844.8
California	2,670.3	2,638.2	34,555.4
Colorado	637.9	488.2	5,295.8
Connecticut	148.4	146.1	3,006.8
Delaware	78.7	77.4	720.8
Florida	1,854.9	2,108.9	23,395.9
Georgia	482.7	491.9	5,561.4
Hawaii	156.5	185.2	3,156.0
Idaho	84.9	109.3	1,022.5
Illinois	705.1	646.8	10,294.5
Indiana	303.8	323.0	3,152.5
Iowa	170.1	189.2	1,941.5
Kansas	203.7	222.1	2,107.3
Kentucky	210.6	224.5	2,354.2
Louisiana	287.6	288.0	3,691.9
Maine	216.1	217.5	2,087.7
Maryland	375.7	431.2	5,149.4
Massachusetts	373.3	380.4	6,558.0
Michigan	764.7	688.7	8,414.8
Minnesota	486.2	419.3	5,362.4
Mississippi	125.2	146.8	1,259.1
Missouri	352.3	364.5	5,152.3
Montana	80.8	85.9	727.9
Nebraska	124.4	135.3	1,306.2
Nevada	3,357.6	333.5	7,718.6
New Hampshire	209.5	174.6	1,958.0
New Jersey	2,787.2	719.7	12,845.0

Table 5: 1987 U.S. Domestic Travel-Generated Business Receipts (Continued)
($ Millions)

State	Entertainment and Recreation	General Retail Trade	Total
New Mexico	$ 189.2	$ 178.5	$ 1,839.2
New York	943.3	960.3	16,514.8
North Carolina	663.3	677.7	6,596.9
North Dakota	45.4	61.9	627.6
Ohio	582.1	589.7	7,329.7
Oklahoma	297.3	306.3	2,815.9
Oregon	274.8	282.5	2,785.6
Pennsylvania	1,080.4	1,060.9	11,202.8
Rhode Island	36.8	39.9	556.2
South Carolina	396.6	437.6	4,128.8
South Dakota	60.9	70.6	604.2
Tennessee	434.8	396.3	4,345.9
Texas	1,220.7	1,237.1	15,209.0
Utah	216.2	208.8	2,056.5
Vermont	184.0	163.4	1,514.4
Virginia	544.9	582.9	6,634.3
Washington	365.0	347.7	4,288.5
West Virginia	129.0	132.8	1,393.3
Wisconsin	556.3	421.7	4,246.3
Wyoming	82.7	71.6	741.7
District of Columbia	68.0	68.4	1,372.4
Total	$26,446.2	$21,520.0	$265,716.3

Note: details may not add to totals due to rounding.
Source: US Travel Data Center

1987 TRAVEL-GENERATED PAYROLL INCOME

Domestic travel spending by U.S. residents directly generated nearly $61 billion in wage and salary, or payroll, income during 1987. This was an 8.8 percent rise over the previous year and exceeded the increase in total U.S. wages and salaries (7.6 percent). Table 6 shows the distribution of payroll income directly generated by travel spending in the states among broad industry categories.

Payroll generated by travel spending on public transportation accounted for almost 29 percent of the total, followed by foodservice, with nearly 27 percent. Travel arrangement, general retail trade, and auto transportation industries accounted for the smallest proportions of total travel-generated payroll. However, the business category with the highest growth rate in travel-generated payroll was travel arrangement with an increase of 15 percent, followed by auto transportation with an increase of over 12 percent. Public transportation and entertainment/recreation each experienced more than an eleven percent rise in travel payroll in 1987, while foodservice grew only four percent.

Table 6: Travel-generated Payroll in the U.S., 1987

Industry category	Payroll ($ billions)	Percent of U.S. total	Percent change from 1986
Public transportation	$17.4	28.7%	11.5%
Auto transportation	3.2	5.2	12.4
Lodging	11.3	18.5	8.3
Foodservice	16.1	26.5	4.2
Entertainment and recreation	7.1	11.7	11.1
General retail trade	2.8	4.7	6.8
Travel arrangement	2.8	4.6	15.0
U.S. total	$60.8	100.0	8.8%
U.S. territories	0.3		14.0
Foreign visitor-generated	3.2		23.6
Grand total	$64.3		9.5%

Note: details may not add to totals due to rounding.
Source: US Travel Data Center

U.S. travelers in our territories generated $268 million in wage and salary income. Foreign visitors in the states and territories accounted for $3.2 billion in U.S. payroll.

Total U.S. wage and salary income directly generated by spending of all travelers in the states and territories reached $64 billion in 1987, an increase of 9.5 percent over the previous year, and a higher growth rate for wage and salary disbursements generated by U.S. resident spending at home. This can partly be attributed to the almost 19 percent increase in foreign visitor spending over last year's spending.

A dollar of travel spending generates different amounts of payroll income in different sectors of the travel industry depending on labor content of the service and the wage structure. For example, public transportation accounts for 25 percent of travel spending but 29 percent of travel-generated payroll. This reflects the relatively high wage structure in public transportation and the importance of labor in producing this service.

Auto transportation, on the other hand, requires less labor per dollar of receipts, and gasoline service station employees receive relatively low wages. Consequently, auto transportation comprises approximately 14 percent of U.S. travel spending, but only five percent of travel-generated payroll.

On the average, one dollar in travel spending directly generated 22 cents in wage and salary income during 1987. The average payroll per job in the U.S. during 1987 was $12,000 per job, an increase of 4.5 percent from 1986. The average ranges from $26,400 in public transportation to $7,400 per job in foodservice. These figures reflect both the average hourly wage in each sector and the number of hours worked per job per year. Foodservice and lodging employment have relatively low payroll per-job averages, due primarily to the seasonal nature of the business and part-time status of many of the jobs.

Table 7 displays payroll income generated by U.S. travelers in each of the 50 states and the District of Columbia during 1987.

The average state benefitted from nearly $1.2 billion in U.S. travel-generated wage and salary income. California led all states with $8.2 billion of this income, followed by Florida with $5.2 billion. Twenty states received more than one billion dollars in travel-generated wage and salary income.

On the other hand, six states indicated less than $200 million in travel-generated payroll for 1987, with North Dakota posting the lowest payroll of all states with $120 million.

Table 7: 1987 U.S. Travel-Generated Payroll ($ Millions)

State	Public Transportation	Auto Transportation	Lodging	Foodservice
Alabama	$ 56.3	$ 26.3	$ 86.4	$ 129.8
Alaska	84.1	12.6	34.0	51.9
Arizona	340.7	70.7	273.3	343.7
Arkansas	33.8	28.4	60.8	148.3
California	2,854.4	417.3	1,330.2	2,055.1
Colorado	342.6	51.2	212.8	336.4
Connecticut	342.6	68.2	76.9	103.3
Delaware	36.6	6.3	33.7	57.9
Florida	1,045.5	265.9	1,217.4	1,628.2
Georgia	242.3	85.4	271.5	355.4
Hawaii	132.3	36.9	337.1	176.0
Idaho	28.3	9.6	33.6	107.4
Illinois	1,167.6	107.7	402.9	436.7
Indiana	209.3	45.4	110.9	198.7
Iowa	111.1	34.1	57.3	131.2
Kansas	116.2	32.0	60.9	142.2
Kentucky	73.0	49.2	88.1	149.3
Louisiana	189.6	69.9	157.6	241.6
Maine	35.9	17.8	107.1	167.0
Maryland	471.3	43.8	148.0	337.0
Massachusetts	561.4	80.0	303.7	292.3
Michigan	581.8	92.4	322.5	436.3
Minnesota	384.7	62.3	189.1	305.5
Mississippi	44.6	19.9	47.0	93.4
Missouri	401.1	80.9	200.0	232.4
Montana	8.7	9.9	41.8	52.6
Nebraska	63.0	23.3	39.7	86.0
Nevada	189.1	50.5	473.4	349.7
New Hampshire	85.4	19.5	101.2	117.7
New Jersey	1,317.7	66.0	339.4	566.5

Table 7: 1987 U.S. Travel-Generated Payroll (Continued)
($ Millions)

State	Public Transportation	Auto Transportation	Lodging	Foodservice
New Mexico	$ 90.3	$ 20.8	$ 66.4	$ 146.8
New York	1,083.5	225.0	834.5	954.5
North Carolina	273.8	66.4	278.7	464.9
North Dakota	28.7	15.2	18.2	37.0
Ohio	566.9	105.6	226.0	401.5
Oklahoma	181.0	33.8	73.7	203.1
Oregon	114.9	36.9	96.1	223.2
Pennsylvania	854.9	105.1	424.9	692.4
Rhode Island	53.2	9.1	18.5	28.0
South Carolina	95.8	45.4	202.3	316.5
South Dakota	16.4	7.7	28.3	42.2
Tennessee	240.4	53.2	169.2	329.8
Texas	1,113.7	215.2	559.9	860.9
Utah	123.9	19.4	84.5	148.9
Vermont	15.6	8.2	67.0	159.9
Virginia	322.9	78.8	393.5	489.2
Washington	369.4	44.2	159.4	253.4
West Virginia	22.0	25.5	67.0	86.1
Wisconsin	120.9	46.4	172.6	305.1
Wyoming	24.4	7.7	36.8	45.8
District of Columbia	184.1	11.4	123.0	87.8
Total	$17,447.6	$3,164.3	$11,258.4	$16,106.0

Note: details may not add to totals due to rounding.
Source: US Travel Data Center

Table 7: 1987 U.S. Travel-Generated Payroll (Continued)
($ Millions)

State	Entertainment and Recreation	General Retail Trade	Travel Arrangement	Total
Alabama	$ 43.7	$ 31.0	$ 14.1	$ 387.7
Alaska	7.2	5.4	12.5	207.7
Arizona	103.2	67.4	33.2	1,232.1
Arkansas	44.2	29.4	6.1	351.0
California	778.8	347.8	459.3	8,243.0
Colorado	160.9	66.1	42.8	1,212.8
Connecticut	45.4	18.1	59.0	713.3
Delaware	18.1	9.2	6.8	168.5
Florida	546.4	282.6	177.2	5,163.2
Georgia	102.1	64.8	65.2	1,186.7
Hawaii	42.8	23.5	68.9	817.5
Idaho	20.7	14.7	5.6	219.9
Illinois	210.1	86.6	226.9	2,638.6
Indiana	71.7	43.6	21.9	701.5
Iowa	33.9	25.7	11.7	405.1
Kansas	49.1	30.3	21.1	451.8
Kentucky	59.0	29.4	11.3	459.2
Louisiana	56.7	39.4	17.3	772.1
Maine	54.8	24.0	4.6	411.1
Maryland	107.5	56.3	46.8	1,210.8
Massachusetts	85.0	44.7	149.4	1,516.5
Michigan	195.5	90.1	72.2	1,790.8
Minnesota	123.5	50.5	58.5	1,174.0
Mississippi	31.9	18.7	5.5	261.1
Missouri	87.9	47.8	75.1	1,125.2
Montana	17.3	11.7	4.5	146.4
Nebraska	28.4	16.7	10.1	267.1
Nevada	1,098.0	48.2	17.5	2,226.3
New Hampshire	56.2	19.4	9.9	409.2
New Jersey	793.4	89.7	116.4	3,289.0

Table 7: 1987 U.S. Travel-Generated Payroll (Continued)
($ Millions)

State	Entertainment and Recreation	General Retail Trade	Travel Arrangement	Total
New Mexico	$ 47.8	$ 23.8	$ 8.1	$ 404.0
New York	207.0	123.1	305.8	3,733.4
North Carolina	144.9	93.2	44.6	1,366.5
North Dakota	10.7	7.8	2.3	119.9
Ohio	152.3	78.3	59.0	1,589.7
Oklahoma	70.8	39.8	14.3	616.5
Oregon	70.6	36.3	23.4	601.4
Pennsylvania	261.6	137.1	92.6	2,568.7
Rhode Island	9.0	5.0	9.7	132.4
South Carolina	93.5	62.4	13.1	828.8
South Dakota	14.5	9.2	3.0	121.2
Tennessee	120.1	54.0	29.1	995.7
Texas	288.3	167.1	157.7	3,362.8
Utah	45.5	27.6	15.7	465.4
Vermont	50.9	19.0	4.9	325.5
Virginia	135.9	77.3	52.9	1,550.3
Washington	96.1	49.9	78.7	1,051.1
West Virginia	32.7	17.8	2.6	253.7
Wisconsin	166.1	54.4	35.4	900.8
Wyoming	19.5	9.7	2.5	146.4
District of Columbia	14.5	10.1	24.8	455.6
Total	$7,125.6	$2,835.6	$2,811.3	$60,748.7

Note: details may not add to totals due to rounding.
Source: US Travel Data Center

1987 TRAVEL-GENERATED EMPLOYMENT

U.S. travel expenditures on domestic trips directly generated over five million jobs during 1987, a 3.4 percent increase from 1986. Table 8 displays the distribution of these jobs among major travel industry categories.

Foodservice accounted for 43 percent of all travel-generated jobs in 1987. As discussed in earlier sections, a portion of this employment occurs in hotels and other lodging places rather than individual eating and drinking places and is often included in measures of total lodging employment.

Spending on lodging while traveling away from home generated almost 985 thousand jobs, or one-fifth of total travel employment, and accounted for more jobs than all transportation components combined. However, it was the transportation and travel arrangement sectors which showed the largest growth in 1987 over the previous year. This was especially true for the public transportation sector which increased employment by 10 percent. Employment in auto transportation and travel arrangement increased 7.3 percent each.

Table 8: Travel-generated Employment in the U.S., 1987

Industry category	Employment (thousands)	Percent of U.S. total	Percent change from 1986
Public transportation	660	13.1%	10.1%
Auto transportation	241	4.8	7.3
Lodging	985	19.5	3.6
Foodservice	2,187	43.4	0.2
Entertainment and recreation	559	11.1	5.3
General retail trade	237	4.7	3.5
Travel arrangement	169	3.4	7.3
U.S. total	5,038	100.0%	3.4%
U.S. territories	22		8.8
Foreign visitor-generated	270		17.3%
Grand total	5,330		3.9%

Note: details may not add to totals due to rounding.
Source: US Travel Data Center

Entertainment/recreation employment increased with a healthy gain of 5.3 percent. Travel-generated employment in the foodservice sector grew only 0.2 percent from 1986 for a small gain of 5,000 full- and/or part-time jobs nationwide.

The spending of U.S. travelers in U.S. territories produced 22 thousand jobs. Foreign visitors to the U.S. accounted for about 270 thousand U.S. jobs, an increase of 17.3 percent from 1986.

In total, travel expenditures in the U.S. directly generated 5.3 million full- and part-time jobs for American residents during 1987, 5.2 percent of total nonagricultural payroll employment in the nation. The travel-generated employment growth rate of 3.9 percent from 1986 was considerably faster than the 2.5 percent growth rate in total U.S. nonagricultural employment.

The increase in the number of U.S. jobs attributable to travel spending in 1987 is not necessarily a net addition to the nation's employment. The increase is the sum of additional jobs created by rising travel activity and existing jobs that are now serving travel demand rather than local demand.

For example, an increase in foodservice employment in a state can be comprised of: a net increase in restaurant jobs due to more travelers purchasing meals, plus an increase in the number of existing workers serving tourists rather than local residents.

The ratio of travel expenditures to jobs directly generated by this spending indicates the average spending needed to directly support one job in the travel industry. The ratio for 1987 is $54,600 up nearly five percent from the previous year. This magnitude changes each year in response to changes in wage rates, the full-time/part-time/seasonal employment mix in the industry, and the distribution of travel spending among the industry components.

Table 9 offers perspectives on the importance of travel-generated employment in each state and the District of Columbia. U.S. resident domestic travel spending generated 4.9 percent of total nonagricultural payroll employment in this country during 1987.

Nevada is the most dependent state on travel and tourism for its jobs, with approximately 32 percent of total nonagricultural employment directly attributable to travel spending. Vermont and Hawaii also show double-digit shares of total employment attributable to travel.

At the other end of the spectrum, Alabama, Connecticut, and Rhode Island indicate less than three percent of their total payroll employment attributable to U.S. travel spending in 1987.

The importance of travel-generated employment in the states' economies for 1987 is also highlighted in Table 9 by the column showing the rank of this employment compared to all other private nonagricultural industries within the state. Total U.S. travel-generated employment is compared to each two-digit industry as defined under the Standard Industrial Classification (SIC) system. Agriculture and government are excluded due to lack of comparable data. For further discussion of this method, see Frechtling (1977) as listed in Appendix E.

U.S. travel away from home in 1987 directly generated more jobs than any other private industry in 13 states and is among the top three employers in 37 states. As Table 9 shows, in no state does travel place lower than eleventh among the 69 non-agricultural private industry groups for which consistent employment data are available.

For the U.S. overall, employment directly generated by U.S. travel ranks second only to the health services industry. Appendix C contains a listing by state of the industry groups that exceeded travel in producing jobs during 1987.

Table 10 shows employment in each of the fifty states and the District of Columbia directly attributable to U.S. travel spending in 1987. California, with more than 556 thousand jobs, led all states with 11 percent of the total. Florida followed with 444 thousand jobs. In all, 17 states enjoyed more than one hundred thousand travel-generated jobs in 1987. At the other end of the scale, Rhode Island had the fewest travel-generated jobs during 1987, with just over ten thousand. Seven states in all had fewer than twenty thousand such jobs in 1987. The average state claimed almost 99 thousand jobs directly attributable to travel spending.

Employment directly attributable to travel spending increased in 39 states and the District of Columbia, while 12 states reported declines from the previous year. For comparison, total nonagricultural payroll employment decreased in only seven states.

Travel-generated jobs fell in many states despite an increase in expenditures and payroll. This can occur for two reasons. First, rising wage rates can cause the number of jobs supported by the amount of travel spending to decline. Those states where travel spending did not grow by as much as the increase in the wage rate experienced a decline in jobs. This also explains why jobs may grow at a slower rate than payroll or expenditures.

The second reason for declining travel-generated employment occurs when there is a shift in travel spending from labor intensive industries, such as foodservice and lodging, to less labor intensive ones such as auto and public transportation. Total travel spending may be strong enough to cause an increase in travel expenditures, but this spending occurred in travel industries that do not require as many jobs per travel dollar spent.

Florida experienced the largest absolute increase in travel-generated employment of close to 54 thousand jobs, as well as the largest growth of nearly 14 percent. Pennsylvania followed with gains of nearly 21 thousand jobs, while Illinois, Michigan, and Nevada each increased by more than 11 thousand travel-generated jobs. Mississippi and New York experienced the greatest percentage decline in jobs of 6.3 percent and 6.2 percent, respectively. New York lost the greatest number of travel-generated jobs, over 16 thousand.

Table 9: Travel-Generated Employment, Share of Total Employment And Rank Among Private Industries, By State, 1987

State	Travel-Generated Employment (Thousands)	Share of Total Payroll Employment (Percent)	Travel-Generated Employment Rank
Alabama	42.1	2.8%	7
Alaska	12.7	6.0	1
Arizona	110.2	8.0	1
Arkansas	44.2	5.3	3
California	556.2	4.8	3
Colorado	103.6	7.4	1
Connecticut	44.5	2.7	10
Delaware	17.5	5.5	4
Florida	443.9	9.2	1
Georgia	103.9	3.8	6
Hawaii	60.0	13.1	1
Idaho	30.2	9.1	1
Illinois	177.4	3.6	5
Indiana	71.8	3.1	6
Iowa	50.8	4.6	2
Kansas	48.2	4.8	2
Kentucky	50.0	3.8	2
Louisiana	73.8	5.0	2
Maine	44.5	8.9	1
Maryland	91.9	4.6	4
Massachusetts	97.3	3.2	7
Michigan	150.9	4.1	4
Minnesota	103.5	5.3	2
Mississippi	31.4	3.6	3
Missouri	91.3	4.2	3
Montana	19.9	7.3	2
Nebraska	32.5	4.9	3
Nevada	159.8	32.0	1
New Hampshire	36.9	7.2	1
New Jersey	208.6	5.8	3

Table 9: Travel-Generated Employment, Share of Total Employment And Rank Among Private Industries, By State, 1987 (Continued)

State	Travel-Generated Employment (Thousands)	Share of Total Payroll Employment (Percent)	Travel-Generated Employment Rank
New Mexico	45.4	8.6%	1
New York	247.7	3.1	5
North Carolina	136.1	4.8	2
North Dakota	15.5	6.1	2
Ohio	146.0	3.2	7
Oklahoma	58.7	5.3	2
Oregon	63.9	5.8	3
Pennsylvania	228.7	4.7	2
Rhode Island	10.3	2.3	11
South Carolina	93.2	6.7	2
South Dakota	17.2	6.7	2
Tennessee	91.8	4.6	2
Texas	264.3	4.1	4
Utah	51.2	8.0	1
Vermont	35.5	14.5	1
Virginia	153.6	5.7	2
Washington	85.1	4.6	3
West Virginia	29.4	4.9	3
Wisconsin	110.7	5.3	2
Wyoming	17.9	9.9	1
District of Columbia	26.3	4.0	4
Total	5,037.7	4.9%	2

Note: details may not add to total due to rounding.
Source: US Travel Data Center

Table 10: 1987 U.S. Travel-Generated Employment
(Thousands of Jobs)

State	Public Transportation	Auto Transportation	Lodging	Foodservice
Alabama	2.7	2.1	9.7	19.2
Alaska	3.1	0.8	2.3	4.7
Arizona	15.5	5.0	24.4	47.6
Arkansas	1.7	2.7	7.3	24.3
California	92.6	29.1	102.6	239.5
Colorado	12.1	3.6	19.5	47.5
Connecticut	14.1	4.7	6.4	11.5
Delaware	2.7	0.5	2.9	8.3
Florida	39.1	20.7	105.2	204.3
Georgia	7.3	6.5	25.0	48.1
Hawaii	5.4	3.0	21.9	20.0
Idaho	1.7	0.9	3.8	19.1
Illinois	38.4	7.8	36.1	58.1
Indiana	10.6	3.7	13.0	32.0
Iowa	6.1	3.2	7.8	25.2
Kansas	5.8	2.6	7.8	21.8
Kentucky	3.6	4.7	10.6	21.4
Louisiana	8.1	6.5	15.4	33.9
Maine	2.0	1.6	9.6	23.3
Maryland	19.5	3.0	12.5	40.8
Massachusetts	19.9	5.3	21.9	33.8
Michigan	22.5	6.6	28.0	64.6
Minnesota	12.8	4.9	18.0	48.5
Mississippi	2.3	1.8	6.2	15.1
Missouri	14.3	6.7	18.9	35.8
Montana	0.4	1.0	5.5	9.2
Nebraska	3.4	2.1	5.3	15.4
Nevada	8.7	3.7	30.9	44.2
New Hampshire	4.1	1.4	7.4	16.5
New Jersey	50.9	3.8	19.0	63.3

Table 10: 1987 U.S. Travel-Generated Employment (Continued)
(Thousands of Jobs)

State	Public Transportation	Auto Transportation	Lodging	Foodservice
New Mexico	4.4	1.8	8.2	22.9
New York	37.3	14.9	55.0	104.4
North Carolina	10.0	5.0	26.9	69.7
North Dakota	1.6	1.4	2.8	6.9
Ohio	26.1	8.4	24.7	61.6
Oklahoma	7.0	2.1	8.6	29.6
Oregon	4.9	3.2	11.0	33.3
Pennsylvania	35.2	8.6	41.3	102.7
Rhode Island	2.4	0.6	1.6	3.8
South Carolina	4.7	4.0	20.9	47.3
South Dakota	0.9	0.7	4.2	8.0
Tennessee	9.2	4.3	15.4	46.2
Texas	41.2	15.7	51.2	110.2
Utah	4.7	1.7	9.2	26.9
Vermont	0.8	0.8	5.4	21.7
Virginia	10.5	5.6	40.9	73.3
Washington	12.3	3.7	15.8	36.0
West Virginia	1.3	2.2	6.2	14.0
Wisconsin	5.7	4.3	19.2	55.4
Wyoming	1.4	0.7	4.5	7.7
District of Columbia	7.0	0.8	7.2	8.7
Total	660.0	240.8	984.7	2,187.0

Note: details may not add to totals due to rounding.
Source: US Travel Data Center

Table 10: 1987 U.S. Travel-Generated Employment (Continued)
(Thousands of Jobs)

State	Entertainment and Recreation	General Retail Trade	Travel Arrangement	Total
Alabama	4.6	2.9	0.9	42.1
Alaska	0.6	0.3	0.8	12.7
Arizona	9.7	5.6	2.5	110.2
Arkansas	5.1	2.6	0.5	44.2
California	41.0	24.7	26.6	556.2
Colorado	12.4	5.8	2.8	103.6
Connecticut	3.2	1.3	3.3	44.5
Delaware	1.9	0.9	0.4	17.5
Florida	39.6	23.5	11.5	443.9
Georgia	8.1	5.3	3.6	103.9
Hawaii	3.6	1.8	4.4	60.0
Idaho	2.9	1.4	0.4	30.2
Illinois	16.8	6.5	13.7	177.4
Indiana	7.0	4.0	1.6	71.8
Iowa	5.1	2.6	0.9	50.8
Kansas	5.9	2.9	1.4	48.2
Kentucky	5.9	2.9	0.8	50.0
Louisiana	5.1	3.6	1.2	73.8
Maine	5.5	2.1	0.4	44.5
Maryland	8.7	4.8	2.7	91.9
Massachusetts	5.7	3.4	7.2	97.3
Michigan	16.9	7.7	4.6	150.9
Minnesota	11.5	4.3	3.6	103.5
Mississippi	3.8	1.8	0.4	31.4
Missouri	7.3	4.1	4.1	91.3
Montana	2.1	1.2	0.4	19.9
Nebraska	3.9	1.7	0.7	32.5
Nevada	67.5	3.5	1.3	159.8
New Hampshire	5.2	1.7	0.7	36.9
New Jersey	58.7	6.8	6.1	208.6

Table 10: 1987 U.S. Travel-Generated Employment (Continued)
(Thousands of Jobs)

State	Entertainment and Recreation	General Retail Trade	Travel Arrangement	Total
New Mexico	5.1	2.3	0.7	45.4
New York	11.0	8.8	16.4	247.7
North Carolina	13.7	8.5	2.4	136.1
North Dakota	1.7	0.8	0.2	15.5
Ohio	14.2	6.9	4.1	146.0
Oklahoma	6.7	3.8	1.0	58.7
Oregon	7.0	2.9	1.7	63.9
Pennsylvania	22.9	11.8	6.2	228.7
Rhode Island	0.8	0.4	0.6	10.3
South Carolina	9.3	6.2	0.9	93.2
South Dakota	2.1	1.0	0.2	17.2
Tennessee	10.0	4.9	1.9	91.8
Texas	23.1	13.6	9.3	264.3
Utah	4.9	2.6	1.2	51.2
Vermont	4.9	1.7	0.3	35.5
Virginia	13.2	7.1	3.1	153.6
Washington	8.6	3.8	4.9	85.1
West Virginia	3.7	1.8	0.2	29.4
Wisconsin	18.4	5.1	2.6	110.7
Wyoming	2.4	1.0	0.2	17.9
District of Columbia	0.7	0.7	1.3	26.3
Total	559.2	237.3	168.8	5,037.7

Note: details may not add to totals due to rounding.
Source: US Travel Data Center

1987 TRAVEL-GENERATED TAX RECEIPTS

Travel expenditures and the business and personal income they generate produce tax revenue for federal, state and local governments. U.S. travelers directly generated over $33 billion in tax revenue during 1987, up almost 13 percent from 1986.

Table 11 shows the distribution of 1987 travel-generated tax revenue among levels of government. The federal government accounted for more than one-half of the tax revenue earned from travel spending during 1987. State governments received one-third while local governments garnered almost twelve percent.

Table 11: Travel-generated Tax Receipts in the U.S., 1987

Level of government	Tax Receipts ($ billions)	Percent of U.S. total	Percent change from 1986
Federal	$18.5	55.1%	14.2%
State	11.2	33.3	13.1
Local	3.9	11.6	8.3
U.S. total	$33.6	100.0%	12.7
U.S. territories	*		
Foreign visitor-generated	1.8		
Grand total	$35.5		

* less than $0.05 billion
Note: details may not add to totals due to rounding.
Source: US Travel Data Center

It is interesting to compare this distribution with that for all tax revenue in the U.S. In fiscal 1987, the federal government accounted for nearly 57 percent of all taxes collected in the U.S., more than its share of travel-generated taxes. Similarly, local governments collected 17 percent of all taxes for the year, more than their share of taxes from travel.

States, on the other hand, accounted for 26 percent of all tax collections, compared to their 33 percent share of travel-

generated taxes. This indicates that state governments are considerably more aggressive in taxing travel-related activities than the federal government or local governments.

The 12.7 percent increase in travel-generated tax revenue for all governments in 1987 was slightly higher than the 11.8 percent growth in total tax revenue. Federal government tax collections also rose 14.3 percent nationally while federal tax revenue directly attributable to travel expenditures rose 14.2 percent. State tax revenue increased 8.4 percent nationally compared to a 13.1 percent rise in state travel-generated tax revenue. Total local government tax revenue grew 9.1 percent in 1987, compared to a 8.3 percent growth in travel-generated local tax revenue.

During 1987, each dollar of travel spending in the U.S. generated 6.7 cents in federal tax revenue, 4.1 cents in state tax revenue, and 1.4 cents in local taxes, for a total of 12.2 cents.

Overall, 1987 travel-generated tax receipts accounted for 3.6 percent of all revenue from taxes in America. The federal government received 3.4 percent of its tax collections from travel. State governments earned 4.5 percent and local governments, 2.5 percent, of all their tax receipts from travel activity. This suggests states are considerably more dependent on travel and tourism for their tax revenue than other levels of government.

Based upon information supplied by territorial governments, the Data Center estimates that U.S. visitors to the territories generated almost $49 million in tax revenue. Foreign visitors produced $1.8 billion in tax revenue during 1987. The Data Center estimates that federal tax revenue generated by foreign visitor spending in the U.S. was approximately $990 million dollars for the year.

All told, U.S. and foreign travelers in the fifty states, the District of Columbia and the U.S. territories generated $35.5 billion in tax revenue for U.S. governments, 3.8 percent of total tax revenue collections in the country. These tax receipts are the product of the tax structures and travel spending patterns.

Table 12 shows estimates of tax receipts generated by U.S. travelers in each of the states and the District of Columbia, by level of government, for 1987.

California led all other states with a total of $4.4 billion in travel-related tax collections. Florida was second with $2.6 billion, and New York was third with $2.5 billion. Montana showed the least amount of tax revenue attributable to travel in 1987, with only $54 million.

Table 12: 1987 U.S. Travel-Generated Tax Revenue ($ Millions)

State	Federal Tax Revenue	State Tax Revenue	Local Tax Revenue	Total
Alabama	$ 100	$ 82	$ 23	$ 205
Alaska	59	15	13	87
Arizona	334	252	68	654
Arkansas	86	85	19	190
California	2,471	1,262	693	4,426
Colorado	411	175	106	691
Connecticut	310	174	28	513
Delaware	72	17	3	92
Florida	1,375	1,042	223	2,640
Georgia	342	212	41	594
Hawaii	184	186	22	392
Idaho	53	53	6	113
Illinois	948	366	157	1,470
Indiana	222	158	52	433
Iowa	104	87	22	213
Kansas	126	85	23	235
Kentucky	127	141	8	276
Louisiana	215	182	73	470
Maine	89	93	15	198
Maryland	452	195	86	733
Massachusetts	514	260	69	844
Michigan	658	342	80	1,080
Minnesota	440	272	65	777
Mississippi	58	82	15	155
Missouri	410	165	61	636
Montana	31	16	7	54
Nebraska	79	63	29	171
Nevada	533	441	177	1,150
New Hampshire	114	67	20	201
New Jersey	1,135	534	136	1,805

Table 12: 1987 U.S. Travel-Generated Tax Revenue (Continued)
($ Millions)

State	Federal Tax Revenue	State Tax Revenue	Local Tax Revenue	Total
New Mexico	$ 97	$ 90	$ 21	$ 208
New York	1,375	680	472	2,527
North Carolina	365	216	71	652
North Dakota	33	35	4	72
Ohio	551	289	88	927
Oklahoma	172	105	54	331
Oregon	157	50	39	246
Pennsylvania	777	595	90	1,462
Rhode Island	43	24	6	73
South Carolina	192	217	39	447
South Dakota	27	28	7	61
Tennessee	280	221	79	579
Texas	1,059	608	203	1,870
Utah	120	109	30	260
Vermont	67	79	15	160
Virginia	387	241	119	747
Washington	312	197	43	552
West Virginia	58	65	5	128
Wisconsin	231	230	36	497
Wyoming	38	22	14	73
District of Columbia	151	0	125	275
Total	$18,543	$11,202	$3,900	$33,645

Note: details may not add to totals due to rounding.
Source: US Travel Data Center

1987 MULTIPLIER IMPACT OF TRAVEL SPENDING IN THE U.S.

Travelers in the U.S. produce "secondary" impacts over and above that of their original expenditures. These secondary outputs (sales) and earnings (wage and salary income) arise from "indirect" and "induced" spending.

Indirect impact occurs as travel industry business operators (such as restaurateurs) purchase goods (such as food and beverages) and services (such as electricity and building maintenance) from local suppliers. These purchases generate additional output or sales indirectly.

Those supplying the restaurateur must, in turn, purchase goods and services from their suppliers. This chain of buying and selling continues in the area until the initial traveler purchase completely "leaks" out of the area through taxes, purchases from outside the area (imports), business savings, and payments to employees. However, during the process of buying and selling within that area, output is generated beyond that from the initial traveler spending.

The other type of secondary impact is the induced effect on sales or output. This results as the employees of businesses and their suppliers spend part of their earnings in the area. This spending itself generates sales additional to the indirect impact.

The sum of the indirect and induced effects comprises the total secondary impact of traveler expenditures in the area. The ratio of the sum of primary output generated (traveler spending less taxes) plus secondary output to initial expenditures alone is commonly termed the sales or output "multiplier".

During the secondary impact process, wage and salary incomes (earnings) are generated additional to that produced by the initial travel expenditures as the suppliers employ labor to produce the additional output. The "earnings multiplier", the ratio of the total primary and secondary earnings generated by the initial visitor spending to that spending, is 0.62.

Deriving acceptable output and earnings multipliers for the U.S., a state, or a local region is normally quite expensive. However, the Bureau of Economic Analysis of the U.S. Department of Commerce can provide national and regional multiplier data at a reasonable cost from its Regional Input-Output Modeling System (RIMS II).

Table 13 summarizes the direct, indirect and induced effects of traveler spending on the U.S. economy in 1987. The $275.2 billion spent by Americans in the U.S. on travel away from home generated a total output of $571.8 billion in expenditures. The ratio of total expenditures output to the initial spending is 2.08, the output multiplier. This indicates the average traveler dollar generated an additional $1.08 in secondary expenditures for a total impact of $2.08.

Table 13 also indicates the direct and total (direct and indirect) dollar changes in earnings that occurred as a result of expenditures. Travel-generated expenditures directly produced $60.8 billion in payroll earnings. However, travel-generated expenditures also had a total (direct and indirect) impact on earnings of $171.4 billion. It is important to note that the total impact of payroll is included in the sales/output multiplier estimates because expenditures include payments to households. In summary, the impact of travel on the U.S. economy totals $571.8 billion in output and $171.4 in earnings.

Table 13: Measure of the Direct and Total Impact of Domestic Travelers on the U.S., 1987

Measure	Direct Impact ($ billions)	Total Impact ($ billions)	Total/Direct Multiplier
Sales or output	$275.2	$571.8	2.08
Payroll earnings	$60.8	$171.4	2.82

Source: US Travel Data Center, U.S. Bureau of Economic Analysis, Department of Commerce

APPENDICES

TRAVEL ECONOMIC IMPACT MODEL

Introduction

The Travel Economic Impact Model (TEIM) was developed by the US Travel Data Center to provide annual estimates of the impact of the travel activity of U.S. residents on national, state and county economies in this country. It is a disaggregated model built upon estimates of 14 travel expenditure categories, their impact on 14 types of travel-related businesses at the retail level, and the resulting business receipts, employment, personal income, and tax receipts.

The TEIM has the capability of estimating the economic impact of various types of travel, such as business and vacation, by transport mode and type of accommodations used, and other trip and traveler characteristics. While the benchmark model estimates are primarily based on data gathered by the U.S. Bureau of the Census in 1977, it has been updated to provide estimates for succeeding years.

The TEIM has been used to develop estimates of 1977 and subsequent year travel expenditures and the effect of these expenditures on employment, payroll and tax revenue in each of the 50 states and the District of Columbia. The County Impact Component of the TEIM allows estimates of the economic impact of travel at the county and city level.

The estimates of economic impact contained herein were developed through a dBase III+ computer program designed by the staff of the US Travel Data Center and operated on the Center's personal computers.

Definition of Terms

There is no commonly accepted definition of travel in use at this time. However, the industry appears to be converging on the concept that travel involves all activity related to trips to places outside the traveler's home area, or more specifically, places 50 miles or more away from home, except for commuting to and from work.[1] However, the principal data sources for measuring travel activity levels, the U.S. Census Bureau's 1972 and 1977 National Travel Surveys and economic censuses, used different definitions. Since these are the only comprehensive, large-sample survey sources of the travel activity in the U.S., the definitions of travel in these surveys are adopted for the purposes of this report.

For the purposes of the estimates herein, "travel" is defined as activities associated with all overnight trips away from, and day trips to places 100 miles or more away from the traveler's origin. This definition is largely coterminous with the 50 mile definition, but each definition excludes activity included by the other. The TEIM definition includes all overnight trips regardless of distance away from home, but excludes day trips to places 50 to 100 miles away from home. The 50 miles definition excludes overnight trips to places less than 50 miles away from home, but includes day trips of one-way distances 50 to 100 miles. Given these differences, it appears a priori that the total volume of expenditures associated with each definition is quite similar.

The word "tourism" is avoided in this report because of its vague meaning. Some define tourism as all travel away from home while others use the dictionary definition which limits tourism to personal or pleasure travel.

The "travel industry," as used herein, refers to the collection of 14 types of businesses that provide goods and services to the traveler or potential traveler at the retail level (see Appendix B: Glossary of Terms). These business types are defined by the Office of Management and Budget in its system of Standard

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[1]See National Tourism Resources Review Commission, Destination U.S.A., Volume 2: Domestic Tourism, U.S. Government Printing Office, Washington, D.C., 1973, pp.4-5; Frechtling, Douglas C., "Proposed Standard Definitions and Classifications for Travel Research," Marketing Travel and Tourism, Seventh Annual Conference Proceedings, The Travel Research Association, Salt Lake City, 1976, pp. 59-73.

Industrial Classifications (SIC).[2] In each case, the relevant SIC code is included.

A "travel expenditure" is assumed to take place whenever a traveler exchanges money for an activity considered part of his trip. Total travel expenditures are separated into 14 categories representing traveler purchases of goods and services at the retail level. Travel expenditures are allocated among states by simulating where the exchange of money for goods or services actually took place. By their nature, some travel expenditures are assumed to occur at the traveler's origin, some at his destination, and some enroute.

"Economic impact" is represented by measures of spending, employment, payroll, business receipts and tax revenues generated by traveler spending. "Payroll" includes all forms of compensation, such as salaries, wages, commissions, bonuses, vacation allowances, sick leave pay and the value of payments in kind paid during the year to all employees. Payroll is reported before deductions for social security, income tax insurance, union dues, etc. This definition follows that used by the U.S. Census Bureau in the 1977 Census of Service Industries.[3]

"Employment" represents the number of jobs generated by traveler spending, both full and part-time. As such, it is consistent with the U.S. Department of Labor series on nonagricultural payroll employment.[4] "Tax revenues" include corporate income, individual income, sales and gross receipts, and excise taxes by level of government.[5] "Business receipts" reflect travel expenditures less the sales and excise taxes imposed on those expenditures.

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[2]Office of Management and Budget, U.S. Executive Office of the President, Standard Industrial Classification Manual, 1972, U.S. Government Printing Office, Washington, D.C., 1973, 649 pp.

[3]U.S. Bureau of the Census, Census of Service Industries, 1977, Area Series, United States, U.S. Government Printing Office, Washington, D.C., 1979, p. A3.

[4]U.S. Department of Labor, Handbook of Labor Statistics, 1975, U.S. Government Printing Office, Washington, D.C., 1979, p. A3.

[5]Advisory Commission on Intergovernmental Relations, State-local Finances: Significant Features and Suggested legislation, 1972 U.S. Government Printing Office, Washington, D.C., 1972, passim, and later editions.

Description of the Model[6]

The basic data on travel activity levels (e.g., number of miles traveled by mode of transportation, the number of nights away from home spent by type of accommodation) are available from the 1977 National Travel Survey.[7] Through the TEIM's National Travel Expenditure Component (NTEC), the activity levels for trips to places within the United States are combined with the appropriate average costs of each unit of travel activity, (e.g., cost per mile by mode of transport, cost per night by type of accommodation), to produce estimates of the total amount spent on each of 14 categories of travel-related goods and services by state. For example, the number of nights spent by travel parties in commercial lodging in Maryland is multiplied by the average cost per night per travel party of staying in a commercial lodging facility in Maryland to obtain the estimate of traveler expenditures for hotel, motel and tourist court accommodations.

The expenditure data resulting from the NTEC cover only those trips to places 100 miles or more away from home, the basic trip definition used in the 1977 National Travel Survey (NTS). Consequently, these results understate U.S. travel expenditures on all overnight trips and day-trips of 100 miles for two reasons. First, only 100-mile trips are included in the 1977 NTS and the expenditure estimates based upon it. Second the 1977 NTS may have underestimated travel activity, with resulting expenditure estimates based upon it underestimated as well.

In order to correct for these potential sources of underestimation, the results of the NTEC for each state are calibrated using estimates provided by the U.S. Census Bureau's 1977 Census of Service Industries (CSI).[8] The NTEC estimates of traveler spending for commercial accommodations are compared to the CSI estimates of hotel/motel receipts from room rentals, and the state travel expenditure estimates for each category are adjusted by the ratio of the CSI estimates of hotel/motel room rental receipts in a state to the NTEC estimates of travel spending on

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[6]For a detailed description of the TEIM, including equations and data sources, see Frechtling, Douglas C., et. al., Travel Economic Impact Model, Volume I: Final Economic Analysis Methodology, U.S. Travel Data Center, Washington, D.C., 1975. 108 pp.

[7]U.S. Bureau of the Census, 1977 Census of Transportation, National Travel Survey, U.S. Government Printing Office, Washington, D.C., 1979, 362 pp.

[8]U.S. Bureau of the Census, 1977 Census of Service Industries, Geographic Area Series, U.S. Government Printing Office, Washington, D.C., 1979.

commercial accommodations in the state. The results are adjusted travel expenditures in each of the 14 categories for each state, which represent expenditures on overnight trips away from home, and day trips to places 100 miles or more away from home.

The Economic Impact Component of the TEIM estimates travel-generated business receipts, employment, and payroll. Basically, the 14 types of travel expenditures are associated with 14 different types of travel-related businesses. For example, traveler spending on commercial lodging in a state is related to the business receipts, employment and payroll of hotels, motels and motor hotels (SIC 701) in the state. It is assumed that travel spending in each category, less sales and excise taxes, equals business receipts for the related business type as defined by the U.S. Census Bureau.

It is assumed that each job in a specific type of business in a state is supported by some amount of business receipts and that each dollar of wages and salaries is similarly supported by some dollar volume of business receipts. The ratios of employment to business receipts are computed for each industry in each state. These ratios are then multiplied by the total amount of business receipts generated by traveler spending in a particular type of business to obtain the measures of travel- generated employment and payroll of each type of business in each state. For example, the ratio of employees to business receipts in Maryland commercial lodging establishments is multiplied by traveler-generated business receipts of these establishments to obtain traveler-generated employment in commercial lodging. A similar process is used for the payroll estimates.

The Fiscal Impact Component of the TEIM is used to estimate traveler-generated tax revenues of federal, state and local governments. The yield of each type of tax is related to the best measure of the relevant tax base available for each state consistent with the output of the Economic Impact Component. The ratios of yield to base for each type of tax in each state is then applied to the appropriate primary level output to obtain estimates of tax receipts generated by travel. For example, the ratio of Maryland State personal income tax collections to payroll in the state is applied to total travel-generated payroll to obtain the estimate of state personal income tax receipts attributable to traveler spending in Maryland.

The 1977 benchmark estimates of travel expenditures, and travel-generated employment, payroll and federal, state and local tax revenue, are up-dated for each successive year. Data from the U.S. Bureau of the Census, the Federal Aviation Administration, the Department of Transportation, Amtrak, the American Bus Association, the Federal Highway Administration, state revenue departments, the Data Center's National Travel Survey and other sources are used for this purpose. These data indicate the change in travel spending for each of the expenditure categories for each state over the

previous year, as well as changes in the relationship of travel spending to employment, payroll and tax revenue.

Limitations of the Study

This study is designed to indicate the impact of U.S. traveler expenditures on employment, payroll, business receipts and tax revenue in each of the states. These impact estimates reflect the limitations inherent in the definition of travel expenditures. Two important classes of travel-related expenses have not been estimated due to lack of sufficient data. Consumers purchase certain goods and services in anticipation of a trip away from home. These include sports equipment (tennis racquets, skis, scuba gear, etc.), travel books and guides, and services such as language lessons and lessons for participatory sports (tennis, skiing, underwater diving, etc.). Although the magnitude of these purchases in preparation for a trip cannot be quantified, it is probably significant relative to overall travel expenditures.

The second type of spending not covered due to lack of sound, relevant data is the purchase of major consumer durables generally related to outdoor recreation on trips. While recreational vehicles (campers, motor homes, trailers and mobile homes) are covered, spending for boats and boating supplies, and off-road recreational vehicles such as trail bikes, dune buggies and snowmobiles are not. Further research is required in this area to estimate the average spending on items such as these by travelers.

In addition, the TEIM records travel expenditures only for those states where travelers spent the night, originated, or were destined. Due to the nature of the Census Bureau's 1977 National Travel Survey, expenditures could not be allocated to states passed through in a single day. It is believed these expenditures may be quite significant to certain "bridge" states between major population concentrations and major destinations.

The trip definition inherent in this study also limits the estimates of economic impact somewhat. Specifically excluded are the economic effects of U.S. traveler expenditures in this country pursuant to traveling to a foreign destination. Also excluded is the impact of day-trips to places less than 100 miles from home. While these latter trips may be quite numerous, intuitively, they appear to involve little economic impact since lodging expenditures and virtually all common carrier spending are excluded. Meal, entertainment and recreation expenditures on these trips also seem relatively insignificant.

These travel expenditures and impact estimates are based on household surveys of travel activity. Consequently, they are subject to all of the sampling and non-sampling errors inherent in sample surveys.

Most travel expenditure data collected is on a "type of purchase" rather than "point of purchase" basis. This means there is some incongruity in matching spending on different goods and services while traveling with the receipts, employment and payroll of different types of businesses. For example, all spending for meals is assumed to take place in eating and drinking places (SIC 58), whereas some may actually occur in hotels or other commercial lodging places (SIC 701). This inconsistency does not appear to introduce major errors in the calculations and can only be corrected upon collection of point-of-purchase expenditure data.

APPENDIX B: GLOSSARY OF TERMS

Automobile Transportation Expenditure. This category includes a prorate share of the fixed costs of owning an automobile, truck, camper, or other recreational vehicle, such as insurance, license fees, tax, and depreciation costs. Also included are the variable costs of operating an automobile, truck, camper, or other recreational vehicle on a trip, such as gasoline, oil, tires, and repairs. The costs of renting an automobile or other motor vehicle are included in this category as well.

Automobile Transportation Industry. Automotive dealers and gasoline service stations (SIC 55); automotive rental and leasing without drivers (751).

Business Receipts. Receipts from customers or clients for services rendered, from the use of facilities, and from merchandise sold. Gasoline, liquor, tobacco, and other excise taxes are also included. Receipts do not include sales, occupancy, admissions, or other taxes collected from customers and remitted directly by the firm to a local, State, or Federal tax agency.

Entertainment/Recreation Expenditure. Traveler spending on recreation facility user fees, admissions at amusement parks and attractions, attendance at nightclubs, movies, legitimate shows, sports events, and other forms of entertainment and recreation while traveling.

Entertainment/Recreation Industry. Amusement and recreation services (SIC 79) and motion picture theaters (783).

Food Expenditure. Traveler spending in commercial eating facilities and grocery stores or carry-outs, as well as on food purchased for off-premise consumption.

Foodservice Industry. Eating and drinking places (SIC 58).

General Retail Trade Industry. This sector is defined to receive incidental purchases by travelers. It includes general merchandise group stores (SIC 53) and miscellaneous retail stores (59).

Incidental Purchase Expenditure. Traveler spending on retail trade purchases including gifts for others, medicine, cosmetics, clothing, personal services, souvenirs, and other items of this nature.

Incidental Purchase Industry. See "General Retail Trade Industry.

Lodging Industry. This industry includes hotels, motels, and motor hotels (SIC 701), camps and trailers parks (703), and general building contractors -- residential buildings (152) and operative builders (1531).

Public Transportation Expenditures. This includes traveler spending on air, bus, rail and boat/ship transportation, and taxicab or limousine service between airports and central cities. Also included are expenditures on "other transportation" as indicated in the 1977 National Travel Survey.

Public Transportation Industry. Air transportation (SIC 45), taxicab companies (412), intercity highway passenger transportation (413), National Railroad Passenger Corporation (Amtrak), and water transportation (44 except 4411). Also is the "dummy" industry of "other transportation."

Tourism. Generally avoided in this study, this can be used to refer to pleasure or personal travel, a subset of travel.

Travel. The act of taking a "trip" (qq.v).

Travel Arrangement Industry. This includes travel agencies, tour operators, and other services in arranging passenger transportation, and is covered under SIC 4722.

Traveler. Person taking a "trip" (qq.v).

Travel Expenditure. The exchange of money or the promise of money for goods or service while traveling, including any advance purchase of public transportation tickets, lodging or other items normally considered incidental to travel, but which may be purchased in advance of the trip. In addition, certain of the "fixed" or capital costs of owning a motor vehicle (including campers, motor homes, etc.) or a vacation or second home are included as associated with taking a trip. Generally, expenditures are assumed to take place at the point where the good or service

is bought while traveling. The two exceptions to this rule are that the fixed costs of operating a motor vehicle while on a trip are allocated to the traveler's area of residence, and the "imputed rent" of spending nights in the traveler's own vacation home are allocated to the area visited.

Travel-generated Employment. The number of jobs attributable to travel expenditures in an area. These estimates of employment follow the "establishment payroll survey definition" rather than the "household survey definition". Consequently, the TEIM estimates are more closely related to the number of jobs than to the number of employees. For a detailed description of the household and establishment survey differences, see Green, Gloria P., "Comparing Employment Estimates from Household and Payroll Surveys," Monthly Labor Review, Volume 92, No. 12, December, 1969.

Travel-generated Payroll. This is the payroll, or wage and salary income, attributable to travel expenditures in an area. Payroll includes all forms of compensation, such as salaries, wages, commissions, bonuses, vacation allowances, sick leave pay, and the value of payments in kind (such as free meals and lodgings) paid during the year to all employees. Trips and gratuities received by employees from patrons and reported to employers are included. For corporations, it includes amounts paid to officers and executives; for unincorporated businesses, it does not include profit nor other compensation of proprietors or partners. Payroll is reported before deductions for social security, income tax, insurance, union dues, etc.

Travel-generated Tax Receipts. These federal, state and local tax revenues attributable to travel in an area. For a given state locality, all or some of the taxes may apply. "Local" includes county, city or municipality, and township units of government actually collecting the receipts, and not the level that may end up receiving it through intergovernmental transfers.

Federal. These receipts include corporate income taxes, individual income taxes, employment taxes, gasoline excise taxes, and, airline ticket taxes.

State. These receipts include corporate income taxes, individual income taxes, sales and gross receipts taxes, and excise taxes.

Local. These include county and city receipts from individual and corporate income taxes, sales, excise and gross receipts taxes, and property taxes.

Travel-generated Wage and Salary Income. The same as "travel-generated payroll."

Trip. A trip occurs, for the purpose of the model, every time one or more persons goes to a place 100 miles or more away from home in one day, or is out-of-town one or more nights, and returns to his origin. Specifically excluded from this definition are: (1) travel as part of an operating crew on a train, plane, bus, truck or ship; (2) commuting to a place of work; (3) student trips to school or those taken while in school. Also excluded is foreign travel activity in the U.S.

Visitor. This term is usually limited to special studies of individual cities or metropolitan areas. It includes those not residing in the area under study who travel away from home overnight or on a day trip of 200 round-trip miles or more and visit the area. As a general rule, total travel impact on an area less the impact of area residents equals visitor impact.

Industries Providing More Jobs than Travel, by State, 1987 (see Table 9)

State	Industry SIC codes*
Alabama	23,50,54,58pt.,73,80
Arkansas	20,80
California	73,80
Connecticut	17,35,36,37,50,54,63,73,80
Delaware	28,73,80
Georgia	22,50,58pt.,73,80
Illinois	50,58pt.,73,80
Indiana	36,37,58pt.,73,80
Iowa	80
Kansas	80
Kentucky	58pt.
Louisiana	80
Maryland	17,73,80
Massachusetts	35,36,50,58pt.,73,80
Michigan	58pt.,73,80
Minnesota	80
Mississippi	23,80
Missouri	58pt.,80
Montana	80
Nebraska	73,80
New Jersey	73,80
New York	50,60,73,80
North Carolina	22
North Dakota	80
Ohio	35,37,50,58pt.,73,80
Oklahoma	80
Oregon	24,80
Pennsylvania	80
Rhode island	17,36,39,50,54,58pt.,59pt.,73,80,82
South Carolina	22
South Dakota	80

Industries Providing More Jobs than Travel, by State, 1987 (see Table 9)--Continued

Tennessee	80
Texas	58pt.,73,80
Virginia	73
Washington	37,80
West Virginia	12,80
Wisconsin	80
District of Columbia	73,80,86
Total U.S.	80

*Key to SIC codes is on following page.
Source: US Travel Data Center

Key to SIC codes

Mining	
12	Bituminous coal and lignite mining
13	Oil and gas extraction
17	Special trade contractors
Manufacturing	
22	Textile mill products
23	Apparel and other textile products
24	Lumber and wood products
28	Chemicals and allied products
33	Primary metal industries
34	Fabricated metal products
35	Machinery, except electrical
36	Electric and electronic equipment
37	Transportation equipment
39	Miscellaneous manufacturing industries
Retail trade	
50	Wholesale trade-durable goods
54	Food stores
58pt.	Eating and drinking place sales to residents
59pt.	Miscellaneous retail sales to residents
Finance, insurance and real estate	
60	Banking
63	Insurance carriers
Services	
73	Business services
80	Health services
82	Educational services
86	Membership organizations

RIMS II

Regional Input-Output Modeling System

A Brief Description

Regional Economic Analysis Division
Bureau of Economic Analysis
U.S. Department of Commerce
Washington, D.C. 20230
(202) 523-0594

RIMS II

Many types of public sector and private sector decisions require an evaluation of probable regional effects. For example, Federal requirements for environmental impact statements and the urban impact of Federal policies necessitate regional impact analyses. A growing concern, therefore, about the effects of public and private decisions has created a demand for regional economic models.

As a result of this demand, economic impact models have been developed for many States and regions. These models vary considerably in terms of structure, reliability, sectoral and geographical detail, flexibility in application, and cost of development and use. In general, the models that provide the most reliable and industrially-detailed secondary impact estimates are the most expensive to construct, while the less costly models that can be used in numerous small-area studies often provide less accurate estimates.

In response to the growing need for improved techniques for regional impact analysis, the Regional Economic Analysis Division of the Bureau of Economic Analysis (BEA) developed the Regional Industrial Multiplier System (RIMS) in the mid-1970's. RIMS was designed to estimate input-output type multipliers for use in estimating the secondary regional impacts of public and private economic development policies. RIMS was capable of estimating multipliers for any region composed of one or more contiguous counties and for any of the 478 industrial sectors in the 1967 BEA national input-output (I-O) table. A significant improvement over the more summary measures often used in regional impact analysis, RIMS was capable of providing reliable multiplier estimates without the high cost of gathering survey data.

The Regional Input-Output Modeling System (RIMS II) is a major revision of RIMS. The basic differences between RIMS II and RIMS are the use of more recent national I-O tables (1972 and 1977), the use of more detailed and more current data for regionalizing the national I-O tables, and greater flexibility in the derivation of regional impact estimates through the use of a matrix inversion technique that provides industrially-disaggregated impacts. RIMS II developmental research is focused currently on estimating regional transactions tables, and comparing RIMS II estimates of state-specific imports and exports with survey-based estimates from the Census Bureau's Commodity Transportation Survey. RIMS II is also being adapted to analyze the regional and industrial impacts of defense procurement.

RIMS II Methodology

In order to estimate impacts such as those presented above RIMS II uses the BEA national I-O tables, which show the input and output structure of 500 industries. Since firms in all national industries are not found in each region, some direct requirements that are not produced in a study region are identified, using Bureau of Economic Analysis (BEA) 4-digit Standard Industrial Classification (SIC) county earnings data. The earnings data are used as proxies for the industry-specific input and output data which are seldom available at the small-area level. Using the same earning data, the resulting regional I-O table then can be aggregated to the level of industrial detail appropriate for the impact study.

More specifically, the RIMS II approach can be viewed as three-step process. In the first step, the national I-O matrix is made region-specific by using corresponding 4-digit SIC location quotients (LQ's). The LQ's are used to estimate the extent to which requirements are supplied by firms within the region. For this purpose, RIMS II employs LQ's based on two types of data. According to this mixed-LQ approach, BEA county personal income data, by place of residence, are used for the calculation of LQ's in the service sectors, while BEA earnings data, by place of work, are used for the LQ's in the nonservice sectors.

The second step involves estimations of the household row and the household column of the matrix. The household-row coefficients are estimated based on value-added gross-output ratios from the national I-O table and introduced into each industry's coefficient column. A household column is constructed, based on national consumption and savings rate data and national and regional tax rate data.

The last step in the RIMS II estimating procedure is to calculate the multipliers. Since it is most often necessary to trace the impact of changes in final demand on numerous individual directly-and indirectly-affected industries, RIMS II applications employ the Leontief inversion approach for obtaining multipliers. This inversion process produces output and earnings multipliers for all additionally affected industries.

Accuracy of RIMS II

Empirical test of the accuracy of RIMS II multipliers indicate that RIMS II yields estimated that are not substantially different from those generated by regional I-O models based on the costly gathering of survey data. For example, a comparison of 224 industry-specific multipliers from survey based tables for Texas, Washington, and West Virginia indicate that the RIMS II average multipliers overestimate the average multipliers from the survey-

based tables by approximately 5 percent, and, for the majority of individual industry-specific multipliers is less than 10 percent. In addition, RIMS II and survey multipliers show a statistically-similar distribution of affected industries.

Advantages of RIMS II

There are numerous advantages to RIMS II. First, it is possible to provide estimates of economic impact without building a complete survey I-O model for each region under study, since RIMS II produces multipliers that are derived from secondary data sources. Second, the RIMS II multipliers are derived from a limited number of secondary data source, thus eliminating the costs associated with the compilation of data from a wide variety of these sources. Third, because of the disaggregated sectoring plan employed by RIMS II, analysis may be performed at a detailed industrial level, thereby avoiding aggregation errors that often occur when different industries are combined. Fourth, the RIMS II multipliers are based on a consistent set of procedures across areas, thus making comparisons among areas more meaningful than would be the case if the results were obtained from incompatible impact models designed only for individual area. Fifth, the multipliers can be updated to reflect the most recent local area earning and personal income data.

The industrial output and personal earnings impacts estimated by RIMS II can be crucial for estimating effects not directly specified by RIMS II itself. For example, the estimation of regional fiscal, labor migration, and environmental effects often depends on the estimation of the regional output and earnings impact of the initial stimulus. Since many of these important effects are often best analyzed on a case-by-case basis, one of the major advantages of using RIMS II is that valuable research resources can be spent on the analysis of these effects, rather than on the construction of an impact model. Therefore, when using RIMS II, a cost-effective impact study might devote most of its research budget to specifying initial impacts in industry specific detail, and analyzing the implications for other important aspects of regional economic activity of the RIMS II estimates impacts.

Applications of RIMS II

RIMS II multipliers, like the original RIMS multipliers, can be used in various types of impact studies. For example, the U.S. Nuclear Regulatory Commission has used RIMS II multipliers in the environmental impact statements required for licensing nuclear electricity-generated facilities. The U.S. Department of Housing and Urban Development (HUD) has used RIMS multipliers to assess the effects of various types of urban redevelopment expenditures. Specifically, BEA was able to quantify probable regional impacts based on the size, type, and location of the numerous individuals

and groups outside the Federal Government. These multipliers have been used in analyzing the regional economic impacts of various projects, such as the operation of a prototype coal gasification plant, the expansion of port facilities, the reclamation of strip-mined land, the adoption of alternative energy futures, and the construction of mass transit facilities.

In August 1982, Association for University Business and Economic Research (AUBER) published a paper, "RIMS II: Overview and Applications," which, in addition to presenting an annotated review of regional economic modeling approached, describes the results of several recent applications of RIMS II and indicates several on-going RIMS II-based research projects. The paper is contained in Readings in Business and Economic Research (Vol. 3), available from Professor William A. Strang, Secretary-Treasurer of AUBER, Office of Research Administration, Graduate School of Business, University of Wisconsin-Madison, 1155 Observatory Drive, Madison, Wisconsin 53707.

A paper, "Trade in Regional I-O Tables", presented at the 1984 annual meetings of the Southern Regional Science Association, describes ongoing research undertaken (1) to evaluate further the usefulness of the techniques underlying RIMS II, and (2) to extend the RIMS II model beyond the estimation of regional transactions tables, as well as the levels of industry-specific imports and exports by state. As discussed in the paper, the research to date has focused on comparisons of estimates from the Census Bureau's Commodity Transportation Survey with those from RIMS II-based models. The report is available for copying cost (10.00) from the Regional Economic Analysis Division, BE-61, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, D.C. 20230.

RIMS II Multipliers

RIMS II multipliers are intended to show the total regional effects on industrial output and personal earnings for any county or group of counties in the United States and for any of the 500 industrial sectors in the 1972 and 1977 BEA national I-O tables. More specifically, RIMS II multipliers can be used to estimate changes in total regional output and earnings resulting from changes in regional final demand for the output of specific industries. Regional output in the I-O context is similar to sales and includes sales to industries in the region and to final demand. In RIMS II, final demand includes sales to government, other regions, and capital formation.

For example, based on RIMS II multipliers, $1 million of new warehouse construction in the Denver-Boulder, Colorado MSA would increase personal earnings in the MSA by $.7 million; the same expenditure in the Wilmington, North Carolina MSA would increase earnings there by $.5 million. The difference between the earnings impacts in the two MSA's occurs because the Denver-Boulder economy locally provides more of the total input requirements for construc-

tion warehoused than does the Wilmington economy. In general, multipliers are smaller in smaller regional economies. However, multipliers and estimated regional impacts also depend on which industry is initially affected. For example, if the initial $1 million were spent on the maintenance and repair of streets in Wilmington, the earnings effect there would be $.7 million, which is the same as the effect of a $1 million expenditure for warehouse construction in the larger Denver-Boulder metropolitan area.

This overview briefly describes RIMS II multipliers, the multiplier-estimation procedures, and some of the advantages and uses of RIMS II. For additional information, see Regional Input-Output Modeling Systems (RIMS II), which is available from the U.S. Government Printing Office.*

*Regional Input-Output Modeling System (RIMS II): Estimation, Evaluation, and Application of Disaggreated Regional Impact Model, available through National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161; accession number PB-82-168-865; cost $16.00.

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Organizations

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